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Strategies to Address Gender Inequalities in Scottish Schools

A Review of the Literature

Education

Strategies to Address Gender Inequalities
in Scottish Schools
A Review of the Literature
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Executive summary

A number of key points have been identified across several themes in the review of the literature on gender inequalities in schools.

Patterns of gender difference in attainment

- In Scotland, the percentage of pupils attaining age-related target levels is higher for girls than boys at most, if not all, stages and in most, if not all, subjects.

- Statistical data does not offer a clearly and consistently differentiated picture: gender differences are more marked in some subject areas, at some stages and at some levels of attainment.

- Differences are greater for later primary and early secondary but the gap steadily increases from Primary 3 onwards.

- The attainment gap for girls and boys is greater for literacy, and particularly for writing, than for mathematics.

- Gender differences are mediated by other social factors, and principally by social class.

- Boys are also demonstrated as faring worse than girls in relation to behaviour, with four times more secondary-aged boys than girls being excluded.

- Policy related to schools tends not to reflect gendered patterns of pupil experience (*e.g. Better Behaviour – Better Learning*).

Causes of gender differences

In-school differences between girls and boys are broadly twofold:

    i. there are different styles of learning, which need different styles of teaching; and

    ii. girls and boys seem to relate differently to schooling and learning and girls find it easier to succeed in school settings.

- In general, the evidence indicates that gender is socially and culturally formed.

- The construction of gender identities starts with early experiences in the family but continues throughout the span of schooling.

- Children's identities are seen as multi-faceted, and as changing through processes of negotiation in different social and cultural contexts, including school.

- Some strategies to address gender differences have failed because they have treated gender as fixed and dichotomous, limiting the ways in which girls and boys are able to view masculinities and femininities.

- Strategies have failed to respond to the ways in which gender is mediated by other forms of identity such as social class and local cultures.

Stage-specific issues

- Differential patterns of gender attainment emerge very early in schooling and are particularly marked in literacy and personal and social development, where girls do better than boys.

- Restrictions on curriculum choice have been seen as one way of tackling highly gendered patterns of subject uptake and attainment because, within a broader core curriculum, girls and boys are compelled to take a wider range of 'non-traditional' subjects.

- Questions have been raised as to whether girls sustain their higher attainment in the wider social arena, with some working-class girls/young women being quickly subordinated to boys/young men in their post-school experience.

Learning, teaching and assessment

- 'Gender sensitive' teaching should accommodate gender differences by providing tasks and activities to suit a range of learning styles and preferences whilst avoiding stereotyped assumptions about boys and girls.

- Sound approaches to gender inequalities encompass well designed assessment processes with varied tasks which allow all pupils to demonstrate their learning.

- Staff awareness is needed of the impact of teacher expectations and interactions on the behaviour and attitudes of boys and girls.

- Teachers should be encouraged to monitor classroom dynamics such as gendered patterns of pupil/teacher interactions in order to increase teachers' awareness of, and responsiveness to, gender issues.

- 'Gender sensitive' behaviour policies try to ensure consistency in the use of praise and reprimand whilst also recognising their differing impacts on boys and girls, for example, in their responses to public praise.

Classroom organisation

- There are criticisms of the practice of using girls to 'police' boys' behaviour in mixed gender classes.

- Single gender groupings used flexibly can have a potential positive impact with benefits for both boys and girls.

- There is a case for using of single gender groups in sensitive subjects and for particular aspects of the curriculum, for example, in Health Education or in Personal and Social Education where sex education is a theme.

- Preparation should include discussions about the rationale for single gender classes with all stakeholders.

- Staff commitment to changes in organisational strategies is critical.

- There is a possibility of increasing 'laddish' behaviour in some boy-only settings.

Whole school perspectives

A way forward may be provided by change management processes involving a complex range of strategies including:

- the identification of issues and problems specific to the school by gathering a variety of data, including the views of stakeholders;

- the use of strategies to raise staff awareness;

- the development of specific teaching skills to address issues of gender inequality in the classroom;

- the use of public events to raise interest;

- the involvement of all stakeholders in discussion; and

- the use of monitoring to sustain and enhance progress.

Vocational education

- Patterns of gender stereotyped post-school destinations are still apparent for school leavers and these patterns disadvantage girls in particular.

- Early leavers have particular needs in terms of advice and support, with girls experiencing poorer outcomes in spite of higher attainment.

- A specific focus on gender-related issues is needed at option-choice times in schools.

1. Introduction

This literature review forms the first part of a study of the strategies employed in Scottish schools to address gender inequalities in relation primarily to attainment. In undertaking this task, the intention is to build upon a number of previous investigations into the nature and causes of gender inequalities in schools. Some of these (Riddell, 1996; Osler *et al*, 2002; Lloyd, 2005) have considered gender and special educational needs; others have discussed gender at particular stages of schooling (Wilkinson *et al*, 1999; Croxford, 1999; Biggart, 2000); whilst a number of recent projects in the UK and in Scotland (Powney, 1996; Sukhnandan, 1999; Tinklin *et al*, 2001) have considered gender, attainment and/or achievement across the population and span of compulsory schooling. A recent nationally commissioned report (Younger, Warrington *et al*, 2005) has specifically investigated the issue of raising the attainment of boys.

Together, these studies and others have established that there are gender inequalities both in the forms of participation in schooling and in its outcomes (albeit there is agreement that gender is not the only, nor even the main, source of inequality). Also available from this body of literature are analyses of causes of gender inequalities and debate about the strategies schools might adopt to address these inequalities. These strategies arise, in general, from understandings of the nature and causes of gender difference. There is, therefore, some contention here. A number of commentators argue that some of the strategies adopted by schools pathologise gender differences and hence reinforce particular forms of masculinity at the risk of suppressing, or marginalising, other forms, and at the expense of femininities.

Evidence that there are gender inequalities in attainment in Scottish schools has been discussed in detail elsewhere. It will be reviewed briefly here and will be related to broader patterns of inequality, and in particular to social class. For this study, though, with its focus on school strategies, the debate about the causes of gendered outcomes is especially important and it will be treated in some depth and related to social class before the discussion moves on to consider the range of strategies employed in schools, as far as they are represented in the literature. The strategies to be considered encompass approaches to learning, teaching and assessment; aspects of classroom organisation; and school-wide issues such as staff development. All of these will be considered critically in the light of previous discussion of the causes of gender differences and their intersection by other, and arguably more influential, forms of identity.

2. Methodology

The literature was systematically searched using a number of databases, including BIDS, and through the internet. Keywords 'gender and attainment' yielded a large number of references and many of these were international. The focus, however, was limited to UK education systems and particularly to Scotland and England. In addition, the research team utilised their knowledge of Scottish schools and teachers and the available literature to supplement information available on school strategies.

3.   Inequalities in attainment: background

Since the 1970s there has been concern amongst policymakers, researchers and professionals to address perceived gender inequalities in the processes and outcomes of schooling. That concern was initially directed towards female pupils, who, in the 1970s, were viewed in the light of the gains made by the Civil Rights Movement of the 1960s. In the field of Women's Rights those advances were embodied in the Sex Discrimination Act (1975) and the Equal Opportunities Act (1975).

The experience of girls in schools was seen as shaped by longstanding stereotyped views of women as having primary roles as wives and mothers. Riddell (2000), in tracing the history of gender in education policy in Scotland, notes that both national advice (SED, 1975) and local policy (Strathclyde Regional Council, 1988), although identifying gender factors in, for example, patterns of subject uptake, did not problematise these findings in relation to school practices. That was left instead to teachers' organisations, notably the Educational Institute of Scotland (EIS, 1989, cited in Riddell, 2000) and the General Teaching Council (GTC, 1991). In a pamphlet to its members intended as 'a positive assertion against sexism' the EIS criticised the situation in contemporary classrooms where:

- boys demanded and received a generous share of teacher time;

- boys received a disproportionate share of hands-on experience (e.g. in science or computing);

- boys received apologies from teachers when asked to undertake non-traditional tasks;

- boys were rewarded for being assertive;

- boys were advised not to act like girls; and

- boys received a disproportionate share of coveted class materials.

<div align="right">(EIS, 1989: para 3.2.5, page 5: cited in Riddell, 2000: 41)</div>

In a broader policy context, Local Authorities (LAs) in Scotland are noted as having been 'sluggish' in their implementation of gender equality policies in contrast with English municipal authorities who placed gender alongside ethnicity in their political activity of the 1980s. Riddell (2000: 42) notes that Scottish LAs did not generally introduce gender equality policies until the early 1990s. These have been slow to take effect and nowhere more so than in schools. The results of the September 2002 School Census (Scottish Executive, 2003a) show that, whilst women form 56% of the teaching force in Scottish publicly-funded secondary schools, only 15% of headteachers in secondary schools are women. A recent study from the Equal Opportunities Commission (EOC, 2000) indicates that women in the UK are generally in lower-status, lower-paid jobs than their similarly qualified male counterparts.

The origins of gender debates in education lie in the radical politics of the 1960s and were about girls as disadvantaged, but since the mid-1970s, data emerging principally from public assessment systems have caused the focus of concern to shift to boys. The apparent underachievement of boys in national examinations is a trend noted in all UK education systems, as well as in those of the USA, Canada, Australia and New Zealand (Francis, 1999; Jackson, 2002). Biggart (2000: 2) notes that political interest in low attainment is tied up with renewed concern about social exclusion, skill levels, economic competitiveness, lifelong learning and the restructuring of the economy. The attainment of boys and young men, who form the majority of low achievers, is thus the focus of considerable attention. Gorard *et al* (2001), however, reporting on their analysis of a large data set from Wales, caution against generalising about gendered performance across whole populations. In their study, they found few significant gender differences in mathematics and the sciences and, for all other subjects, no significant gender differences at the lower levels of assessment.

In Scotland, a number of recent studies (Croxford, 1999; Wilkinson *et al*, 1999; Tinklin, *et al*; 2001, Tinklin, 2003) have included secondary analyses of a range of quantitative data from the Scottish Qualifications Agency, Assessment of Achievement Programme, Scottish School Leavers' Survey, Scottish Executive's Statistical Bulletins and Baseline Assessment Programmes. These analyses have demonstrated that, whilst levels of attainment have increased overall since the 1970s, average levels of attainment for boys are lower than for girls at all stages and across almost all areas of the curriculum. A similar picture can be observed in England and Wales (Younger, Warrington *et al*, 2005).

The most recent attainment statistics from the Scottish Executive (Scottish Executive, 2003b) indicate that, for all subjects and stages, the percentage of pupils attaining target levels was far higher for females than for males. The difference was noted as generally greater for the later primary and early secondary stages than for early primary stages. It is also greater for English reading and writing than mathematics. As in England, though, commentators are careful to point out that, though the picture in some curricular areas such as literacy is clear, in areas such as mathematics the relative average performance of boys and girls is not so easily distinguished. Nor can simple, general conclusions about boys' and girls' attainment be drawn from the data:

> *Average figures for attainment conceal many differences between groups of pupils: some males achieve very high levels of attainment, and some females fail to achieve examination awards. Our research showed far greater differences in school experiences between high attainers and low attainers of both sexes and between those from advantaged and disadvantaged home backgrounds than between boys and girls.* (Tinklin *et al*, 2001: 2)

In addition, ethnicity has been shown to increase further the complexity of patterns of attainment (Arnot *et al*, 1998). Tinklin (2003) argues, therefore, that any study of attainment needs to consider the interactions of gender, ethnicity and social class.

Studies of patterns of attainment in and beyond Scotland point to the dangers of considering gender as disconnected from other aspects of pupil identities. Concerns have been expressed that a focus on outcomes for any one group might then distort perceptions of the performance of other groups (Blyth and Milner, 1996; Plummer, 2000). In her study of the achievement of working class girls in the education system, Plummer (2000) criticises the simplistic interpretation of statistics on the relative performance of boys and girls in national examinations in England. Within those overall statistics, it is argued, there is evidence that groups other than boys are faring badly. Plummer's concerns are that the widespread attention given to the supposed underachievement of boys has distracted from the continuing failure of the education system to provide equitably for other social, cultural and ethnic groups and, in particular, for working class girls. Figures indicating the significant achievement of middle class girls, she argues, have been widely misinterpreted as indicative of a rise in the achievement of all girls.

Investigations in England (Murphy and Ellwood, 1999; Davies and Brember, 1995) relate the academic attainment of boys and girls to patterns of behaviour. They note that, even at the early stages of schooling, there are signs of boys being more vulnerable to becoming disaffected. They also note a relationship between discipline and a decline in boys' attitudes to school. Boys were less careful about rules than girls and more indifferent to being reprimanded. There was evidence, though, that the greater conformity of girls created lower teacher expectations of girls' ability, whereas boys' more challenging, ebullient and risk-taking behaviour was viewed by teachers as indicative of higher levels of ability (Murphy and Ellwood, 1999). However, Younger, Warrington *et al* (2005) note that there are many boys who continue to do well in school and that the perception of problems seems to relate to a minority of pupils rather than a majority. In a report produced as part of the Scottish School Leavers Survey, Biggart (2000) indicated that there was only limited evidence to support the

view that low attainment amongst Scottish school leavers was attributable to negative attitudes to education or that disaffection was a principal cause of low attainment.

Patterns of behaviour in Scottish schools are highly gendered. Since 1999, the Scottish Executive has published statistics annually on school exclusions (e.g. SEED, 2000). These show secondary-aged boys as four times more likely than girls to be excluded from school. Boys in primary school are ten times more likely than girls to be excluded (SEED, 2000). The statistics as published, as well as delineating a strong gender imbalance, are structured by indicators of poverty (receipt of free school meals) and by other factors such as possession of a Record of Needs and Looked After status. The figures indicate that, though gender is a major determinant of exclusion, young people grouped by other criteria are even more vulnerable. Looked After children, for example, are thirty times more likely to be excluded than children living with their immediate family. As would be expected from these figures, referrals to Behaviour Support reflect a preponderance of males (Head *et al*, 2002). In the light of these highly gendered patterns in the area of behaviour referrals and exclusions, it is interesting to note that the SEED policy on discipline/behaviour, *Better Behaviour – Better Learning* (SEED, 2002) does not mention the impact of gender (nor a number of other social factors) on pupils' experience of school.

The representation of some groups, boys and others, in attainment and exclusion statistics raises questions about the ability of schools to deliver socially just outcomes – an understandable focus of attention for government, for whom the pursuit of social justice is a flagship social policy. In November 1999, the Scottish Executive issued a new report, *Social justice…a Scotland where everyone matters* (Scottish Executive Education Dept, 1999). The report provided a framework of targets and milestones to enable the monitoring of progress towards social inclusion. Targets were aimed at, for example, ending child poverty, increasing the educational attainments of school leavers and increasing the financial security of older people. Just as there are questions about schools as sites for the pursuit of social justice, so, too, are there questions about the wider social and economic context and its impact on young, working class women and men.

To summarise:

- **In Scotland, the percentage of pupils attaining age-related target levels is higher for girls than boys at most, if not all, stages and in most, if not all, subjects.**

- **Statistical data does not offer a clearly and consistently differentiated picture: gender differences are more marked in some subject areas, at some stages and at some levels of attainment.**

- **Differences are greater for later primary and early secondary but the gap steadily increases from Primary 3 onwards.**

- **The attainment gap for girls and boys is greater for literacy, and particularly for writing, than for mathematics.**

- **Gender differences are mediated by other social factors, and principally by social class.**

- **Boys are also demonstrated as faring worse than girls in relation to behaviour, with four times more secondary-aged boys than girls being excluded.**

- **Policy related to schools tends not to reflect gendered patterns of pupil experience (*e.g. Better Behaviour – Better Learning*).**

4.   Causes of gender inequality

The section considers possible causes of gender differences in school attainment in relation to schooling and to the wider social and economic context.

i.   In-school factors

What might account for differences in school outcomes for boys and girls? Possible explanations come from in-school factors relating to the management and ethos of the school, the content and organisation of the curriculum, assessment practices, and classroom pedagogies. In subsequent sections, each of these will be discussed in detail and in relation to corresponding strategies. To summarise here, though, Sukhnandan *et al* (2000:88) identify in the literature two broad explanations for girls' and boys' differential performance in schools:

- girls and boys are noted as having developed different styles of learning, which need different styles of teaching;

- girls and boys seem to relate differently to schooling and learning and girls find it easier to succeed in school settings.

In support of the first overall difference, Sukhnandan (1999) cites a number of studies (Murphy and Elwood, 1998; Arnot *et al*, 1998) indicating that boys and girls experience the curriculum differently and respond differently to the materials and tasks given to them. Boys are noted as heavily influenced by their reading experience and by their preference for non-fiction with diagrammatic and pictorial representations (Millard, 1997). Girls, too, are influenced by their early reading experience but they tend to read more fiction. Their experience of the narrative structure better equips them for the extended and reflective writing that is highly valued within school assessment practices. These insights have enabled schools to review and develop curriculum and assessment strategies but experts in the field of curriculum, learning and assessment point out that explanations for the differential attainment of girls and boys are complex, even within the limited sphere of schooling (Gipps and Murphy, 1994). Recent work in this area (Younger, Warrington *et al*, 2005) suggests that strategies which were most effective in addressing the achievement of boys were those developed within a holistic framework catering for the needs of all pupils.

Sukhnandan *et al's* (2000) second overall difference entails girls as being, in general, well disposed to the demands of classroom activity. They place a high value on the presentation of their work; they spend more time trying to improve what they produce (MacDonald *et al*, 1999); they care more about the opinions of their teachers (Davies and Brember, 1995; Bray *et al*, 1997); they derive more enjoyment from school life (Arnot *et al*, 1998); and all of these factors are in contrast with boys' general attitudes.

A strong influence on boys' attitudes to school and to learning is noted as the peer group (Barber, 1994). Where the culture of the peer group is to devalue schoolwork, it is difficult for individual boys to seek and accept the public endorsement of the school. Girls, on the other hand, do not experience a conflict of loyalties between friends and school to the same degree (Barber, 1994; Macrae *et al*, 2000).

These insights into the experiences of boys and girls have shaped the strategies adopted by schools. However, although influential on strategies, the extent to which schools are responsible for gender inequalities in attainment is debated in the literature. For example, Sukhnandan (1999), citing an analysis of Ofsted inspection reports, indicates that schools that were successful in providing equal opportunities for girls and boys had a headteacher who was committed to developing equal opportunities initiatives and who had systems in place to investigate gender differences. Sukhnandan (1999) also notes that overall levels of

attainment of boys and girls in such schools were more unequal than in schools that did not address the area of gender equality.

Provision of equal opportunities, therefore, would not seem to have equalised outcomes in relation to attainment. Jackson (1998) argues that older methods of pursuing equal opportunities were relatively unsuccessful in this respect because they posed a simple, dichotomised model of girls and boys, failing to recognize that boys and girls have multiple and changing identities. The relationship between equalising attainment and whole-school policies/strategies will be considered further in the context of the literature on the management of change and the development of inclusive schools.

The attribution of gender inequalities in attainment (the 'underachievement' of boys) to in-school causes is further challenged by the considerable body of literature which points to girls as disadvantaged in school contexts. For example, Paechter (1998) argues that boys dominate time and space in classrooms, managing to attract to themselves much more teacher time and much greater 'hands-on' access to resources such as computers. Boys also dominate outside and recreational space through activities such as football, taking up a lot of space and displacing other activities (Shilling, 1991, cited in Paechter, 1998). In addition, the effects of stereotyping subjects has been seen as impacting negatively on girls' choices (Riddell, 1992) by, for example, acting against girls' participation in those subjects perceived to be more abstract but valued highly by university admissions tutors.

Commentators have drawn attention to gendered conceptualisations of the problem of gender inequality (Paechter, 1998; Cohen, 1998). They argue that girls' failings have been attributed to factors within girls themselves, whereas boys' failings have been blamed on external circumstances (e.g. teaching styles, reading materials). The converse has also applied; girls' successes are seen as being due to external factors (e.g. the success of equal opportunities policies) whereas boys' achievements are credited to internal attributes such as innate intelligence.

The literature raises difficulties in locating the causes of gender inequalities in attainment, particularly boys' 'underachievement', in school processes. Why do schools demonstrating awareness and preparedness to act on equal opportunities fail to reduce the 'gender gap'? If a whole range of school activities and processes disadvantage girls, why is it boys who are faring less well in formal assessment systems? The literature on in-school causes of gender inequality throws up a number of apparent contradictions. However, schools wishing to address the 'gender gap' can only do so within 'the microcosm of the school institution alone' (Nayak, 2003: 148), so it is understandable that many of the strategies to be reviewed in this project arise from perceptions that schooling is both the cause and the solution.

Policy on and in schools is shaped by the discourse on school effectiveness and school improvement (for example, *Raising Standards – Setting Targets* [SOED, 1998]; *Targeting Excellence: Modernising Scotland's Schools* [SOED, 1999]). Other discourses, such as those relating to culture, identities and social justice, have important insights to offer but, whilst these might assist understandings of the experiences of different social and cultural groups in schools, they have contributed less to the range of strategies adopted by schools. Literature associated with this wider discourse will be considered here, however, to assist in the review of strategies to follow in the next phase of this project.

ii. The development of gendered identities

The literature in this area (for example, Connell, 1982; Arnot, 1991) tends to reject the notion that there are biological or pathological differences and, in general, is also critical of social learning theory, which postulates that gender identities are fixed by early processes of socialisation. Although there is scepticism in the literature, these theories of gender have had considerable impact on the development of strategies for boys and girls. Mac An Ghaill

(1994: 8) criticises earlier strategies to address perceived discrimination against girls, pointing out that strategies such as changing school texts, and establishing gender-fair teaching styles were well-intentioned, if naïve. He cites Arnot (1991), who argues that the drive to develop school strategies to address the perceived disadvantage of girls was flawed by:

> *…the simplicity of the portrayal of the processes of learning and gender formation, its assumptions about the nature of stereotyping, its somewhat negative view of girls as victims.* (Arnot, 1991: 453)

Similarly, Martino and Berrill (2003) take up the theme of gender inequalities in relation to strategies to address boys' underachievement. They critique New Right prescriptions for change to address the 'problems' of masculinity, particularly in schools. They argue such prescriptions are based upon assumptions about the 'natural' predispositions of boys, which emphasise their tendency to behave, think and learn in particular ways (Martino and Berrill, 2003: 103).

During the 1990s, however, the distinction between masculinity and femininity was taken much further by a range of theorists (for example, Connell, 1995; Epstein, 1997 and 1998; Mac an Ghaill, 1994; Skeggs, 1991; Paechter, 1998; Skelton, 1998). Addressing this literature, Jackson (2002: 39) identifies four strands in the theorising of masculinities:

(i) masculine identities are historically and culturally situated;

(ii) multiple masculinities exist;

(iii) there are dominant and subordinate forms of masculinity;

(iv) masculinities are actively constructed in social settings.

The theories summarised thus have provided useful tools for analysing the causes of gender inequality. Academic work, it is argued, was perceived by boys to be 'feminine' and therefore unattractive to those with hegemonic masculine identities. Academic achievement is not in itself seen to be demeaning, but being seen to work in school is noted as a problem for some boys. Jackson (2002) discusses how boys protect their self-worth in school settings where academic achievement is the single most important criterion in judging the worth of pupils. Caught between two competing influences on their sense of themselves – the need to conform to hegemonic masculinities and the desire to value one's own worth – Jackson outlines four strategies commonly employed by boys to protect their masculine identities: procrastination; withdrawal of effort and rejection of academic work; avoidance of the appearance of work; and disruptive behaviour.

The last of these has four benefits in Jackson's view. Disruptive behaviour can increase a boy's status with the peer group who may see him as demonstrating 'appropriate' forms of masculinity. Second, it can deflect attention away from academic performance and on to behaviour. Third, failure to achieve can be attributed to poor behaviour rather than to lack of ability and, fourth, it may sabotage the academic efforts of classmates outwith the masculine hegemony. The processes by which boys assert and negotiate their masculinities in school settings go some way to explaining the disproportionate number of behaviour referrals and exclusions accorded to boys.

As well as offering much deeper understandings of boys' attitudes and experiences of schools, theories of masculinity also support a critical appraisal of the strategies used by schools to address gender inequalities. Thus such strategies may be seen as underpinned by the misguided notion that masculinity is unidimensional, inherent and static. School strategies, in general, are seen as reinforcing hegemonic masculinities. These are based on the structure of gender/sexual power relations (Epstein, 1997) and, within these, boys define themselves as Subject against the 'Other' (Paechter, 1998). Any association with femininity is located within the 'Other', as are masculinities that do not conform to the hegemonic

standard of what it is to be a 'real' man (Kenway and Fitzclarence, 1997: 119-120). The effect, then, of strategies used to address gender inequality may be to reinforce particular ways of being masculine and to ignore and undermine other ways:

> *Strategies 'designed to motivate under-achieving boys through football study centres and 'boy-friendly' texts' embrace the discourse of academic study as 'non-masculine' and 'feminine' and can only operate to make life more difficult for those who take up non-hegemonic identities.* (Renold, 2001)

Skelton (2001) criticises the widespread trend in schools and education authorities towards producing support materials designed to make classrooms more 'boy friendly' by endorsing one kind of masculinity – that which is aggressive, active and dominant. However, she acknowledges that research into masculinities, femininities and schooling, which has yielded rich insights into the school lives of boys, has not been influential in developing the practical approaches so much demanded by schools.

Strategies intended to enhance the educational prospects of boys may limit the capacity of schools to value and support the growth of other, and different, forms of gendered identity. The literature here points to a challenge in reviewing school strategies. Gains made for one group may have a negative impact on the experience of other groups. The question then, when considering school strategies, is not just *Do boys do better?* but also *Do girls suffer?* and, *Is it harder than ever now in some schools to be a non-hegemonic boy?* These questions will be addressed later through discussion of school strategies and their impact on boys and other groups.

iii.   Gender and wider social factors

As previously indicated, literature on gender and attainment emphasises the impact of other social factors on school attainment, particularly the effect of social class. A number of commentators (e.g. Archer and Yamashita, 2003) argue for the need to recognise in policy and practice intersecting identities or 'culturally entangled masculinities'. By this account, gender interacts with other aspects of social being, for example, class, culture, ethnicity and sexuality, to create multiple forms of identity with the result that, within the whole group of boys for example, there are very different relationships to schools and schooling, depending on a range of other social factors.

From the wide educational literature on 'equal opportunities' issues – gender, culture, class, ethnicity, sexuality – there are insights into how identities intersect. Mac an Ghaill (1988) and Blyth and Milner (1996) deal with race and racism and show how schools create alienation and disaffection in unintentional but potent ways:

> *….racism operates both through the existing institutional framework that discriminates against all working class youth….and through 'race' specific mechanisms, such as the system of racist stereotyping, which are also gender specific. There may be no conscious attempt to treat black youth in a different way to white youth, but the unintended teacher effects result in differential responses, which work against black youth.*
> (Mac an Ghaill, 1988: 4)

Mac an Ghaill goes on to show how the responses of black boys and black girls to institutional racism are different, with girls' responses characterised as 'resistance within accommodation' – compliance with formal and explicit rules whilst withholding any real engagement with the organisation. Boys, on the other hand, challenged directly the oppressive mechanisms they encountered and were more likely to be excluded. Blyth and Milner (1996) discuss the reasons for the disproportionate representation of African-Caribbean boys in exclusion statistics in England and ask that schools with such over-

representation of that group consider the complex and conflicting social and cultural systems negotiated by some groups in schools:

> *Any school with a disproportionate rate of exclusions for black male pupils could usefully remember that while white pupils are negotiating with teachers as (un)equal but similar members of a socialisation process, the situation for black pupils is much more complicated. These pupils must negotiate three different social contexts – the **mainstream** (white) socialisation process in schools in which they constitute a **minority** (racist) and, within that minority context, they have to negotiate black **cultural** agendas, which can be as diverse as Rastafarianism or black religious cultures.*
>
> (Blyth and Milner, 1996: 74)

The negotiation of identities, this time the process of negotiating masculine, working-class identity, is described in the seminal study by Willis (1978), *Learning to Labour: why working-class kids get working-class jobs*. He describes the process through which a group of secondary school 'lads' become increasingly resistant to school and explains this resistance in terms of their need to move into the culture that will shape their adult lives. Willis claims that his study offers some explanation of the failure of state education to improve radically the chances in life of working-class children. It also explains the coordinated and consciously challenging behaviour of some groups of boys within school settings.

Arnot (2003) reconsiders Willis's *Learning to Labour* in the light of contemporary research into social justice and identities and, notwithstanding valid criticisms, she argues for the continuing relevance of Willis's critique. This lies in its insight into how the 'lads' culture demonstrated that forms of social class (anti-school) resistance are based on the celebration of traditional sexual identities:

> *A critical aspect of Learning to Labour….is the discussion of what Willis called 'cross-valorisation' of, on the one hand, manual labour with the 'social superiority of masculinity'.* (Arnot: 2003: 104)

For working-class boys, engagement with the mental activity of school diminishes their sense of their masculinity, derived from their peer group, their family and their community. Not only is the pursuit of academic attainment an act of disloyalty, it is also a form of emasculation. Arnot (2003) links this analysis to the work of Bourdieu, who argued that working-class men have much to lose through educational success in the context of an alien, middle-class culture.

This theme of conflict between class/cultural affiliation and educational attainment is pursued by Reay (2002) in her discussion of Shaun's experience in a London 'sink' secondary school. Here, a poor working-class boy struggles, at some personal cost, to maintain his 'tough' status with his peer group whilst simultaneously aspiring to achieve at school. Reay sees in Shaun's struggle an illustration of how gender and class identities interact: Shaun loves his entirely female family and shares their values but he recognises that life on the estate where he lives demands his conformity to aggressive forms of masculinity.

Reay's point is that his class identity shapes his gender identity, forcing him to construct his toughness as philanthropic, to be used in support of weaker peers and needy teachers. Alluding to the work of Nayak (2001), Reay says:

> *…against the backdrop of contemporary economic change and the hegemony of global capitalism, it is white, working-class young men who have the strongest sense that their masculinities are under siege, and this has consequences for their defensive practices.* (Reay, 2002: 232)

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What do these analyses mean for schools and for the development of strategies to boost boys' attainment? Archer and Yamashita (2003) argue that there is evidence of the 'normalisation' of particular, white, middle-class values within education which encompass 'laddishness' but fail to recognise important aspects of working-class boys' identities. For example, they argue that policies and strategies fail to grasp the extent to which some boys 'experience strong emotional attachment to identities grounded outside of the education context' (Archer and Yamashita, 2003:129). That attachment manifests itself in the deliberate cultivation of particular kinds of embodied masculinities such as forms of speech and dress, which not only attract the disapproval of schools but, in the longer run, are likely to hinder the social mobility of the boys. For the boys themselves in this study, social mobility was not desirable since they articulated a strong attachment to a particular locality. During interviews, they expressed a sense of belonging to a place as constituting an important part of their identity. They linked this to their need to feel safe, to be known and accepted. The boys' comments, although couched in terms of belonging to a place, could also be an image for cultural affiliation and the threat of dislocation posed by academic success.

Nayak (2003), writing about how boys in the North-east of England construct their identities in an industrial context much-changed since their fathers' and grandfathers' days, argues that the gender identities of young people 'cannot be adequately comprehended within the microcosm of the school institution alone' (Nayak, 2003: 148). Connell (1989) similarly argues the need for research on identities and identity construction to see the school as located in a larger process. Masculinites are negotiated across various sociocultural and historically specific sites, impelling the researcher to consider school processes and experiences as influenced by global changes such as de-industrialisation. The two main sites for the construction of working-class, masculine identities have shifted dramatically. No longer will boys in Scottish communities have access to jobs in the traditional industries, nor will their role in the home be one of patriarchal breadwinner.

From another point of view the 'gender gap' in attainment could be understood in terms of girls' success rather than as indicative of boys' failure (Sukhnandan, 1999). The literature notes the gains made by girls as a result of the removal of barriers to their participation in schooling. The introduction of comprehensive schooling (Epstein *et al*, 1998), the removal of gender biased selection procedures for the secondary phase of schooling (Gipps and Murphy, 1994; Croxford, 2000) and the success of equal opportunities programmes are all credited with contributing to the relative rise in the attainment of girls.

What does this mean for a review of school strategies to address gender inequalities? As has already been suggested, recent literature in this area has challenged a view of gender as pathologically determined. Instead a richer and more complex account emerges of how boys and girls interact with schooling, developing and modifying their sense of themselves in response to particular circumstances both in school and beyond school, and shaped by a whole range of social factors – social class, culture, sexuality, ethnicity. By this account, the impact of gender on attainment is mediated by other forms of pupil identity. Messages from these sources point to schools having to acknowledge a diversity of masculinities and femininities, allowing pupils to see themselves in the identities validated by the school.

To summarise:

    In-school differences between girls and boys are broadly twofold:

        (i) There are different styles of learning, which need different styles of teaching.

        (ii) Girls and boys seem to relate differently to schooling and learning and girls find it easier to succeed in school settings.

- **In general, the evidence indicates that gender identity is socially and culturally formed.**

- **The construction of gender identities starts with early experiences in the family but continues throughout the span of schooling.**

- **Children's identities are seen as multi-faceted, and as changing through processes of negotiation in different social and cultural contexts, including school.**

- **Some strategies to address gender differences have failed because they have treated gender as fixed and dichotomous, limiting the ways in which girls and boys are able to view masculinities and femininities.**

- **Strategies have failed to respond to the ways in which gender is mediated by other forms of identity such as social class and local cultures.**

Having considered the literature on the causes of gender inequalities in attainment in Scottish schools and related that to broader social and cultural factors, this review will now move to consider the stages of schooling where gender is a particular issue.

5. Stage-specific issues

In the literature, concern about gender issues has emerged strongly in relation to particular stages of schooling.

i. Early education

Gender inequalities have come through in baseline assessments in Primary 1 (Wilkinson *et al*, 1999) and there have been concerns about boys' slow start in two areas in particular: literacy and personal, emotional and social development. The former is viewed as key to attainment across the curriculum and the latter gives rise to concerns about boys' attitudes to school and schooling (Murphy and Ellwood, 1998). In reviewing Early Years research, BERA (2003) noted that the major influences on young children's progress in the early years were prior attainment on entry to formal schooling and teacher expectations (Tizard *et al*, 1988).

ii. Subject choices

There have been many studies (Riddell, 1992; Sutherland, 1999; Croxford, 2000) detailing gendered patterns of subject uptake. Of particular concern has been the low level of female uptake of mathematics, science and engineering courses; female participation in craft and technology courses and low male uptake of modern languages. Croxford *et al* (2003) note that SQA data in 1999 showed considerable gender imbalance within the science mode; 70% of biology candidates were female compared to only 31% of physics candidates and, further, 80% of candidates for Office and Information Skills were female but only 36% of candidates for Computing Studies. At Higher level, Croxford *et al* (2003) report that these gendered patterns of uptake continued. Explanations for these patterns relate to the stereotyping of subjects by pupils, teachers and parents, to perceptions of usefulness of the subject to future lives and careers, to wider social expectations and to pupils' own interests.

Croxford at al (2003) note that core subjects such as English and mathematics, although no longer compulsory at Higher level, showed a more balanced uptake of males and females. This leads to the conclusion that the broadening of the core (that is, the restriction of choice for pupils) may be a way of addressing gender imbalances in subject uptake. Croxford (2000) argues that the core curriculum for 14 – 16 year olds may be too small:

> *For this stage of schooling it might be more appropriate for the majority of pupils to continue to study a larger common element of courses in order to keep their options open. The large amount of subject choice allowed by the final two years of national curricula in the UK has been formed on the assumption that high proportions of young people leave school at 16, and should choose the subjects they study for school-leaving examinations……Gender differences in post-compulsory courses and in careers would be reduced if there were a larger common entitlement and less choice in subjects for the final two years of each national curriculum.*

(Croxford, 2000: 130)

However, Croxford goes on to acknowledge the dangers of increasing the common and compulsory part of the curriculum: that there may also be an associated narrowing of the curriculum because of the government's wish to emphasise basic skills of literacy and numeracy; that pupils may be alienated by an overly prescriptive curriculum; that such prescription goes against the political will for educational markets and parental choice; and, finally, that an increase in central control over the curriculum may undermine the intention to value teachers' professionalism by allowing them flexibility to develop appropriate curricula in response to individual and local needs.

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iii. Post-school experience

Understandings of girls' increased attainment are amplified by wider sociological explanations. Changes in forms of participation in the labour market in a post-industrial economy have brought many more women into the labour force. It is possible for more girls to envision their future lives in work, as well as or instead of at home. In their study of post-16 transitions, Macrae and Maguire (2000) considered the formal attainment of girls and boys at the end of compulsory schooling and note:

> *It became evident from our in-depth interviews that there were other significant differences between the sexes in, for example, attitudes and motivations…the females in our study generally had clearer goals and firmer ideas about their futures, regardless of 'race', class or academic attainment. Overall the males in our study were less coherent, more vague and gave the impression of being less concerned about their future plans than the female students.* (Macrae and Maguire, 2000: 172)

The writers also noted that girls considered the future in collaboration with each other and behaved very supportively towards each other in relation to Higher Education and career goals. Boys, on the other hand, generally did no more than exchange information with their friends. However, in spite of the apparent focus of girls on their futures, it is cautionary to point out that recent studies by the EOC (EOC, 2000) show that, however much women's participation in work has increased, the status of their jobs and the level of their average earnings continue to lag behind men's. There does indeed seem to be a mismatch between girls' success in school settings and the lack of a follow-on in terms of female success in the wider social arena. Some insight into this is offered by the work of Macrae and Maguire (2000). Though sexuality was not a direct focus for their work, they found that some young women who had demonstrated high levels of attainment in school were positioned by versions of 'heterosexualised feminities' into subordinate relationships with males. Macrae and Maguire (2000) conclude by saying that it is 'all change, no change' in the post-16 sphere.

To summarise:

- **Differential patterns of gender attainment emerge very early in schooling and are particularly marked in literacy and personal and social development, where girls do better than boys.**

- **Restrictions on curriculum choice have been seen as one way of tackling highly gendered patterns of subject uptake and attainment because, within a broader core curriculum, girls and boys are compelled to take a wider range of 'non-traditional' subjects.**

- **Questions have been raised as to whether girls sustain their higher attainment in the wider social arena, with some working-class girls/young women being quickly subordinated to boys/young men in their post-school experience.**

The following section is the first of three considering the range of strategies used by schools, as those strategies are represented in the literature.

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6.   Learning, teaching and assessment

In this section issues related to the learning experiences of pupils in the classroom will be examined. The focus will be on summarising the issues and discussing specific strategies used in schools to address issues of gender inequality. This section draws from different types of materials, including practical advice written for practitioners (Noble and Bradford, 2000; Pickering, 1995; Bleach, 1998a), research surveys of practice (Sukhnandan, 1999; Sukhnandan *et al,* 2000; Arnold, 1997) and examples of practice from academic journals to provide illustrative examples of strategies used to promote gender equity.

The main themes emerging from the literature relate to both the cognitive and socio-emotional aspects of learning and cover:

- teaching and learning processes

- assessment practices

- teacher expectations

- interaction patterns in the classroom

- pupil attitude and motivation.

i.   Teaching and learning processes

In discussions about the gender gap in performance, a recurring question is whether boys and girls learn in different ways (Bray *et al*, 1997). One explanation for these perceived differences is the idea of 'brain sex' (Gurian and Henley, 2001), which suggests that there are different physiological patterns which lead to boys and girls learning in different ways. However, caution has to be expressed about simple categorisations such as 'boys' learning styles' and 'girls' learning styles' (Van Houtte, 2004; Head, 1997). It is questionable whether *all* boys and *all* girls have the same preferred learning styles demanding different teaching approaches (Creese *et al,* 2004). The wholesale adoption of such strategies may limit the learning opportunities of both girls and boys. This point is reinforced by Younger, Warrington *et al* (2005):

> *…. Our research does not support the notion that there is a case for boy-friendly pedagogies. Pedagogies which appeal to and engage boys are equally girl-friendly. They characterise quality teaching and as such are just as suitable and desirable for girls as for boys.*
>
> (Younger, Warrington *et al*, 2005:11)

There are, however, some broad patterns evident in the way in which girls and boys prepare themselves for learning and engage in learning in the classroom that point to the importance of social experiences in shaping attitudes and approaches to learning. Girls' and boys' social experiences may shape their approach to learning at school: girls' pre-school experiences may prepare them for school-type activities (Arnot *et al* 1998, Bleach 1998a). Girls' approaches to the task of organising their learning, having the right materials (Ofsted and EOC, 1996) completing homework (Bleach, 1998b) are different to patterns of behaviour observed in boys. Different interests and pastimes, which provide girls and boys with different language opportunities, align them in different ways to schooling and learning (Murphy and Elwood, 1998).

Against this backdrop, a range of strategies has been used to tackle issues such as boys' work habits, their need to be fully engaged in the classroom and limited concentration span.

Noble and Bradford (2000) identify typical strategies:

- short, focused, timebound tasks
- use of activity
- use of an element of competition such as quizzes and games
- more oral work
- use of ICT and AV.

Similarly Bleach (1998b: 52-53), reporting on a school-based project in an English comprehensive, highlights the importance of:

- activity-based and experiential approaches, alongside
- the development of reading and literacy skills, and
- homework being used to develop autonomous learning and to practise skills learned in the classroom. Like class-based work, homework included the use of a variety of tasks such as investigations, observations, reading, drawing, problem solving and use of local community facilities.

Arnold (1997: 18) notes the importance of providing structure in the learning process for boys:

- setting clear targets
- structuring lessons
- being specific with questions and tasks
- using learning resources, study guides and differentiated materials.

In addition, Arnold reports on schools which have introduced a range of strategies to develop skills in learning to learn, including:

- target setting and action planning
- homework clinics
- revision skills development
- study skills development.

Frater (1998: 62), in his discussion of a literacy project targeted at improving boys' achievement, highlights a number of strategies in the delivery of the curriculum. These include:

- brisk starts to lessons with clear aims
- well-maintained and appropriate pace
- lesson endings with review
- a variety of activities in clearly phased stages
- a variety of images and diagrams alongside text.

Gipps (1996: 265) proposes a repertoire of teaching strategies to support the learning of girls:

- using more co-operative and interactive modes of learning
- emphasising discussion and collaboration
- having class discussion *and* quiet reflection
- using 'private' as well as public questioning and probing of the pupil by the teacher
- slowing the pace of the lesson and encouraging pupils to use the time to compose responses
- giving feedback which challenges and gives precise guidance (in a supportive manner) as well as praise, rather than bland praise (for dutiful hard work) which girls currently tend to receive.

What these various strategies listed above point to is the importance of varied and confident teaching which is gender-sensitive. Thus teachers use a repertoire of strategies that is underpinned by an appreciation of the different learning needs of boys and girls. Such an approach should be to the benefit of both girls and boys.

Reports of school-based developments (Arnold, 1997; Bleach, 1998b; Frater, 1998; Noble, 1998; Penny, 1998) indicate that a focus on addressing gender inequalities has opened up a space for change to take place. Schools, departments and individual teachers have the opportunity to look closely at the teaching and learning processes and enhance these. Where there are initiatives to explore and enhance the learning experiences of boys, girls also benefit substantially and raise their achievement even further (Sukhnandan, 1999; Penny, 1998; Noble, 1998). Though the gender gap may not be reduced, there are improved learning opportunities for both girls and boys.

ii.   Assessment practices

Formal assessment through national systems is used to monitor gender performance but, as Murphy (2000) points out, there is only limited discussion of the interaction between gender and the assessment process itself.

In the literature the main areas of concern have been:

- the types of assessment tasks being used: girls tending to do less well on multiple choice type tests and better on longer written tasks (Stobart *et al*, 1992)

- the balance between course work and summative assessment: use of course work and continuous assessment as part of the overall assessment process may support girls' performance (Quinlan, 1991; Powney, 1996); failure to complete course work is more frequent among boys (Salisbury *et al,* 1999)

- bias in the content of assessment tasks: gender stereotyping evident in the content of national examination questions in Scotland (Ganson and De Luca, 1995).

Hildebrand's (1996) report on the development of a physics curriculum to tackle girls' limited performance is an example of changes to assessment practices to develop greater equity. She argues that '…changes in assessment practices have led to an educationally important transformation in girls' experience of, and success in, the physics curriculum' (p166). This curriculum and assessment programme indicates the importance of several features in assessment design that would benefit all learners:

- clear guidelines on the course work component for assessment

- guidelines on the completion of assessment tasks with clearly stated criteria

- contextualised problems

- stated criteria matched to course aims.

The use of contextualised problems, however, has been questioned. Murphy (2000) argues that efforts to make practical tasks and problems more 'real' – in other words, more meaningful – are based on the premise that these would be gender neutral. Murphy found that girls and boys read tasks differently and will attribute more or less relevance to a specific task or context. These different responses reflect different social and learning experiences of boys and girls and different levels of self-confidence in relation to a specific context. This has implications for the teaching process in preparing pupils for assessment and for greater variety in the response formats (Murphy and Elwood, 1998).

Gipps (1996: 265) argues for good assessment practices that, again, are gender-sensitive.

Thus we need to look to:

- using assessment that supports learning and reflection rather than relying upon competition with others

- designing assessment that is open and linked to clear criteria

- including a range of assessment strategies so that all learners have the chance to perform well.

iii.   Teacher expectations

The impact of the expectations of the teacher in shaping pupils' expectations and attitudes towards school and specific subjects, in terms of both general performance and gender appropriateness, is well charted (Arnot *et al,* 1998; MacDonald *et al*, 1999; Riddell, 1992; Stanworth, 1982 and Archer, 1992). These findings highlight the importance of staff development in areas related to both:

- attitudes and understandings of gender

- relationships in the classroom.

iv.   Interaction patterns in the classroom

One particular area for staff development is in the area of classroom interaction. There has been an extensive range of studies internationally on gender and classroom interaction patterns (Howe, 1997) and the key issues to emerge include:

- boys' dominance

- girls' silence

- nature and quality of interaction

- the frequency of teachers' negative interactions with boys

- teacher reinforcement of sex stereotypes within the formal curriculum and through informal interactions.

Boys' dominant behaviour was observed in both primary and secondary education (French and French, 1984; Swann and Graddol, 1988; Bousted, 1989). As a control strategy, teachers were often more likely to select boys to respond during a teacher-led discussion, but boys would more frequently interrupt or initiate a contribution. A significant proportion of the interactions between teachers and boys were negative comments or reprimands. The gender of the teacher does not seem to be a significant factor in the differential levels of participation by male and female pupils (Whyte, 1984). However, it was noted that not all boys tended to dominate interactions but, rather, it was a small subgroup of boys (French and French, 1984).

There are also issues related to ability and 'saliency' in the classroom. Duffield (2000) found that girls' ability or attainment would also impact on participation levels and the provision of individual support. Morgan and Dunn (1988) distinguish between salient and non-salient pupils in relation to teachers' perceptions: salient pupils are more likely to be boys, while non salient pupils are more likely to be girls, though again ability level may also be an influencing factor.

Findings suggest that girls may be penalised for taking a more active role, with evidence of a tendency for the negative characterisation of girls' assertive and more public behaviour

(Skelton, 2001). Given this, girls will often seek support from the teacher on a one-to-one basis by asking questions for which they will receive a response (Howe, 1997).

These gender-differentiated patterns are often the result of unquestioned beliefs and well-established routines and behaviours on the part of both teachers and pupils. Change in this area, to bring about a more equitable set of experiences for both boys and girls, is often based on teachers becoming more aware of these differentiated patterns. Sukhnandan (1999) identifies this as an area where schools have examined practice through:

- staff awareness raising

- developing and implementing whole school policies on all aspects of work and behaviour

- monitoring classroom dynamics on:
  - teacher-pupil interaction
  - levels of attention and support
  - frequency of questioning
  - levels of encouragement
  - teacher expectations
  - use of discipline.

v.   Pupil attitude and motivation

Boys' culture is seen as anti-intellectual, anti-educational and anti-learning, (Sukhnandan, 1999) and less study oriented than girls (Van Houtte, 2004). Bleach (1998c: 45) argues that '…boys often appear more concerned with preserving an image of reluctant involvement or disengagement'. Connell (2000) calls these 'protest masculinities'. However, not all boys share these negative attitudes towards learning, though for those boys who do engage with classroom learning there can be significant tensions (Mac an Ghaill, 1994; Reay, 2003; Younger, Warrington *et al*, 2005). Nevertheless, there are some issues related to gender and motivation. A summary of the findings includes:

- boys are more likely to be reprimanded than girls, even when the pupil in question is on task (Measor and Sikes, 1992; Merrett and Wheldall, 1987);

- pupils are aware of the differences in interaction, with boys reporting that they receive less support and guidance and that teachers have higher expectations of girls (Younger and Warrington, 1996 and 1999; Bleach, 1998b);

- girls and boys tend to respond to public positive feedback with higher achievement. If praise is withdrawn, however, girls still tend to strive for higher achievement, whereas boys tend to abandon the task (Nemeth, 1999);

- boys look more to the teacher for motivation, whereas girls seem more willing to take responsibility;

- boys are more willing to participate if there is a friendly, relaxed atmosphere and lessons are interesting; otherwise there is a sense of them being 'made to work' or working only if there are assessments involved (Younger and Warrington 1999); and

- girls '…across schools and ability groups were more intrinsically motivated, clearer of their own targets and aims and more aware of what was needed if they were to achieve those goals' (Younger and Warrington, 1999: 234).

Galloway *et al* (1998) report similar findings. Girls tend to have higher levels of task orientation (where the focus is on the achievement itself), particularly in English. Boys have higher levels of ego orientation (the concern is their standing with other people) in both

English and maths. As the authors remind us, ego orientation is not necessarily a barrier to success in education.

Recognition of the gender-differentiated patterns of both interaction in the classroom and of motivation styles has implications for school behaviour policies. Davidson and Edwards (1998: 135) noted in their study of boys' achievement in their secondary school that '…the school's reward system, involving merits for good work and efforts, was favouring girls' approach to work'. The revised school policy on discipline included:

- a recognition of boys' strengths such as concise answers, more speculative

- more consistency in the use of rewards.

In the same vein, Bleach (1998c) highlights the importance of reprimands being private. One of the issues raised is whether boys' praise should also be private (given the peer group pressure boys experience).

To summarise:

- **'Gender sensitive' teaching should accommodate gender differences by providing tasks and activities to suit a range of learning styles and preferences, whilst avoiding stereotyped assumptions about boys and girls.**

- **Sound approaches to gender inequalities encompass well designed assessment processes with varied tasks which allow all pupils to demonstrate their learning.**

- **Staff awareness is needed of the impact of teacher expectations and interactions on the behaviour and attitudes of boys and girls.**

- **Teachers should be encouraged to monitor classroom dynamics such as gendered patterns of pupil/teacher interactions in order to increase their awareness of, and responsiveness to, gender issues.**

- **'Gender sensitive' behaviour policies try to ensure consistency in the use of praise and reprimand whilst also recognising their differing impacts on boys and girls, for example, in their responses to public praise.**

7.   Classroom organisation

Two contrasting classroom organisational strategies have been developed to tackle gender differences in achievement: the use of mixed gender groupings and the single gender groupings and classes. In addition, single gender classes are sometimes used in a targeted way to tackle specific topics. Arnold's (1997) survey of initiatives aimed at raising boys' achievement identifies a number of examples from schools, including some where schools are using single gender settings and others where a range of additional factors such as gender are taken into account.

i.   Mixed gender groups

There is little consistent analysis of the use of mixed gender classes in the literature; this is dealt with largely in material intended for practitioners. Noble and Bradford (2000) argue for a policy on seating in the classroom to prevent pupils, predominantly disengaged boys, gathering at the periphery of classrooms. A common theme in the literature is the use of other pupils to provide advice and act as role models, working with pupils who may be disruptive or less engaged. Frequently this is on the basis of mixing genders.

Here again, there is a need to be cautious about the implications of some of the proposals for gender stereotyping. For example, among the suggestions put forward by Noble and Bradford (2000) to improve boys' performance are the following:

- make the lads sit next to well-motivated girls who will sort them out and set a good example

- get their girlfriends to make them see sense.

Although it must be noted that, in this case, these come from a list of suggestions generated by pupils, the use of girls in the control of boys is something that is implicit in a range of strategies such as seating policies, mixed gender pairs and groups. The function of girls is to exercise their 'civilising' influence in 'supporting' boys' learning (Raphael Reed, 1999) and '…to police, teach, control and civilise boys.' (Epstein *et al*, 1998: 9). The expectation that at least some girls should play this role raises questions about their own opportunities for learning.

ii.   Single gender groups and classes

Single gender groups have been used as an equal opportunities strategy to promote girls' participation and active engagement in areas where girls were under-represented, such as science, technology and computing (Reay, 1990). The purpose behind the use of single gender groups was to create a space for girls (Kenway *et al*, 1998) to actively engage in practical tasks rather than either be passive observers or take on roles such as organising and tidying up (Rennie and Parker, 1987).

The current use of single gender classes is largely to tackle boys' under achievement in secondary education. One view popularly expressed is that during adolescence boys are distracted by the presence of girls (Woodhead, 1996) and engage in behaviours that detract from their learning. However, in some contexts this strategy has been adopted to support the learning of both boys and girls. Warrington and Younger's (2004) survey found the following reasons for adopting single gender teaching:

- to encourage able girls to become more involved in lessons and to boost confidence in scientific abilities;

- to encourage boys to work more collaboratively and to develop the social skills necessary for working in mixed groups in subsequent years;

- to address the underachievement of boys, and specifically in some schools, the gender gap in English and/or modern languages;

- to limit the effect of boys' bad behaviour and lessen boys' need to be 'laddish'.

There were differences in whether it was 'top' or 'bottom' sets of pupils performing at the borderline that were organised into single gender classes.

There were also clear differences in the level of preparation and level of involvement of:

- teachers: in some schools there was little preparation or detailed discussion about teaching single gender groups

- pupils: the involvement of pupils ranged from a limited briefing to more extended consultations with explanations of the positive outcomes; in some schools the briefings were through single sex assemblies

- parents: the involvement of parents was predominantly limited to informing the parents of this development either by letter or at a parents' evening. Usually there was no response other than occasional, positive feedback from parents of Muslim girls.

A number of schools in the study talked about different teaching and learning strategies for boys' and girls' groups. The strategies identified were similar to those discussed earlier. Considerably fewer strategies were suggested for girls than for boys, and these largely revolved around perceptions of girls' strengths or preferences: with longer, more in-depth tasks, more reading and writing and co-operative activities for girls. One school used Gardner's framework of multiple intelligence rather than simply gender to shape variation in experiences (Gardner, 1993). In some schools there were modifications to curriculum materials to accommodate perceived differences in interest between boys and girls.

The use of single gender classes has been reported as being used in Scottish schools. Buie (2004) cites the use of single gender classes in S2 for English where the boys' performance improved remarkably. However, it was also noted that one of the best teachers was deployed in this classroom and the practice has not been continued. (Mixed gender pairings have been used instead, although it is acknowledged that girls resent this.) Positive outcomes in terms of mathematics and language have been noted in another school where there is a longer-term use of single gender classes (Smith and De Felice, 2001).

There is clearly a debate about the impact of single gender classes on pupil attainment. Early findings in a study on the use of single gender groups in mathematics were inconclusive (Rowe *et al*, 1996; Rowe, 1998). Warrington and Younger (2004) found that it was difficult to assess the impact of single gender teaching because of the diversity of practices and the limited time the approach had been implemented.

Schools reporting improved results were those where:

- staff were involved,
- staff were enthusiastic and committed to single-gender teaching,
- appropriate strategies were planned and implemented in the classroom,
- teachers shared ideas with other teachers, and
- pupils and parents were involved in the rationale for teaching in single-gender groups.

There were, however, some negative effects according to Warrington and Younger. Some boys' 'laddish' behaviour increased and in six schools the worsening or lack of improvement

in boys' behaviour led to single gender teaching being abandoned. Younger, Warrington *et al* (2005) continue this theme:

> *…single sex classes are not a panacea in themselves: in some schools, boys-only classes have become very challenging to teach, or stereotyping of expectation has established a macho regime which has alienated some boys. Even in the most successful schools, both boys and girls have consistently said that they do not wish to be in single sex classes for **all** lessons.*
>
> <div align="right">(Younger, Warrington <i>et al</i>, 2005: 7)</div>

Further efforts to ensure 'effective' role models by providing male teachers to teach boys and female teachers to teach girls may only serve to reinforce gender stereotypes (Kenway *et al*, 1998), particularly reinforcing a 'laddish' culture in boys-only classes (Mills, 2000) and further disadvantaging girls. Jackson (2002: 44) observed discernible differences between all-girls classes and all-boys classes: '... girls are liberated by girls-only space' and there was a more relaxed and supportive environment. In contrast, '…the climate of boys' groups was reported to be more competitive and aggressive'.

Single gender classes are, as Warrington and Younger (2004: 348) argue, 'no panacea for the problem of poor behaviour, disaffection and lack of achievement'. Nevertheless, as Sukhnandan *et al* (2000: 249) found, '...they can provide a positive and successful experience for girls and boys where the senior management team is committed to single-sex teaching as a mode of organisation through time and to diffuse good practice which might be identified'. Further, a recent national study in England concluded that:

> *Evidence in favour of the development of single-sex classes for some subjects, from both students' voices and from an analysis of levels of academic achievement, is nonetheless persuasive.*
>
> <div align="right">(Younger, Warrington <i>et al</i>, 2005: 7)</div>

However, these need to be accompanied by a critical stance and to challenge practices that reinforce stereotypical gendered roles.

iii.   Subject specific single gender classes

There are some examples of single gender teaching being used as a strategy in relation to areas of the curriculum such as personal development, sex education, physical education and, to a lesser degree, of schools working on gender awareness as part of the development of gender equity.

Strange, Oakley and Forrest (2003: 213) found that the majority of girls and about a third of boys would like sex education in single gender groups. Some of the reasons put forward by girls include not just the disruption created by boys but '…the subject matter provides boys with an opportunity to use sexual matter and language to denigrate girls'.

The findings, however, are not always clear. In a recent survey in Scotland on sexual health, some children and young people said they would would prefer single gender classes, while others felt they learned more from mixed classes, especially on relationship issues (Children in Scotland, 2003). There is a further issue in relation to sex education and children from ethnic minority backgrounds. In some schools in Edinburgh it was noted that pupils, particularly girls from ethnic minority backgrounds, were being withdrawn from sex education classes. A consultation conducted by the University of Edinburgh (2001) found that, among those parents who supported sex education, the preference was for single gender classes. In a case study conducted by Airnes (2001) on the use of single gender classes in biology, boys reported there was no difference in working in single gender classes, whereas the girls reported that they found this a better working environment. Airnes concludes that it may be of

benefit for pupils to work separately in certain circumstances, for instance on practical work or on sensitive topics in the syllabus.

iv.   Ways forward

The Education Review Office in New Zealand (2000) undertook an extensive survey looking at the achievement of boys. It was found that secondary schools where the achievement of boys was relatively good had the following features:

- a high standard of behaviour and discipline

- a supportive environment with positive role models and where students are encouraged to take responsibility for their own actions

- a wide range of programmes, including subjects that are of particular interest

- where the learning needs of boys were being addressed, these were related to clear management processes. Further, there was an awareness of girls' needs.

These findings echo those of Arnold's (1997:14) survey in England. Pupils from a school in Durham where there was a smaller gender differential than in other schools put forward the following reasons:

- the school's system of organisation, both pastoral and academic, encouraged students to develop a sense of responsibility and feel valued as individuals

- the expectations of teachers were high, but realistic

- teachers recognised that boys lost concentration and employed a wide variety of teaching styles to keep them interested.

- boys are often lazy but they will work harder if they know it is a particularly important piece of work

- relationships with most teachers must be good

- the pace of lessons was sometimes very fast, but teachers were willing to talk the work through or explain again

- boys will do the minimum work necessary if they can get away with it but they are not allowed to, most of the time.

To summarise:
- **There are criticisms of the practice of using girls to 'police' boys' behaviour in mixed gender classes.**

- **Single gender groupings used flexibly can have a potential positive impact, with benefits for both boys and girls.**

- **There is a case for using single gender groups in sensitive subjects and for particular aspects of the curriculum, for example, in health education or in personal and social education where sex education is a theme.**

- **Preparation should include discussions about the rationale for single gender classes with all stakeholders.**

- **Staff commitment to changes in organisational strategies is critical.**

- **There is a possibility of increasing 'laddish' behaviour in some boy-only settings.**

8.   A whole school perspective

This section considers evidence of the need for a whole school perspective on addressing gender inequalities, with a specific focus in some key areas.

A key question is: how, within the organisational context of a school, can change bringing about gender equity be introduced and sustained? Some work has been undertaken in the area of school-wide issues and strategies. The following themes are highlighted:

  i.   gender, school effectiveness and school improvement
  ii.   managing change
  iii.   monitoring and using data
  iv.   understandings of gender and policy making
  v.   policy making
  vi.   role models
  vii.   mentoring
  viii.   school ethos and participation in development.

i.   Gender, school effectiveness and school improvement

The management of schools in Scotland is framed within the school effectiveness and improvement agenda. Perhaps one of the most remarkable features of the substantial range of school effectiveness research is the lack of attention to the issue of gender in relation to the features of effectiveness (Duffield, 2000). The question of 'school mix', that is, social class, has been a consideration largely in methodological terms to ensure the validity of comparative data in assessing effectiveness. However, one of criticisms of the school effectiveness and school improvement movements has been the lack of attention to equality issues. For example, Rea and Weiner (1996) are critical of school effectiveness research upon which policies about school evaluation are based because gender, along with other social factors, is rendered invisible. Nevertheless, they do see some potential in this research:

> However, we also suggest that certain aspects of school effectiveness could be of immense use to institutions such as our own [schools and HEIs alike]. For example, we need to regain the notion of 'value added' as a diagnostic tool by which teachers and educational institutions are able to identify and improve weaknesses and build on strengths – rather than as a means of pathologising urban education.
>
> We can look to the generic processes of managing change and improvement as a means of promoting gender equity particularly those features identified in school improvement literature such as leadership, shared vision and values (and) collegiality.   Rea and Weiner (1996: 30-31)

ii.   Managing change

Myers (2000), in reviewing the range of national and local initiatives in relation to gender since the passing of the Sex Discrimination Act in 1975, stresses the importance of drawing from understanding about the management of change in bringing about greater gender equality. Generic processes are the basis for bringing about change and improvement including: leadership; staff development to raise awareness and to review and develop classroom practices; policy making; and, monitoring and evaluation.

Wyatt *et al* (1996: 233) put forward a working model for gender and change in which there are a number of key components:

- the source and purpose of the proposed change is clearly discussed, data is used to support the case for change and practical strategies as ways forward are highlighted

- recognition of the values base of the proposals and work towards exploration of values, attitudes and expectations with all concerned

- teachers as learners with support strategies developing a collegiate approach. Existing strengths and good practice are built upon, success is recorded and celebrated

- management processes are used to plan, implement and support the changes and time is available for monitoring, development and reflection.

Leadership, as a critical factor relating to the status of the individual in the school structure, is important. Ofsted and the EOC (1996) found that schools successful in providing equal opportunities for both boys and girls were characterised by a headteacher with strong commitment to developing equal opportunities initiatives. However, though senior management has an important role to play in highlighting the importance of the issue and giving it legitimacy, distributed forms of leadership in taking initiatives forward are also seen as effective, particularly when such initiatives have the clear public support of the headteacher. In Rudduck's (1994) study of the development of gender policies in secondary schools, a critical aspect was the role of the 'gender leaders' tenacity and willingness to sustain the change, and their readiness to think through established and accepted practices and patterns of behaviour in school. Taking the initiatives forward rested on good management practice in relation to:

- pace of change,

- effective communication to keep all informed and

- determining tactics appropriate to the context: either an incremental approach building up support and moving with the majority to marginalise opposition, or issuing a public challenge on the issue of gender equity to 'disturb' colleagues into change.

This notion of 'disturbing' staff indicates that bringing about change in this area in a school setting can be problematic. Among the issues that need to be faced in pursuing change in relation to gender is, firstly, the acknowledgement that the issue of gender is a problem: a teacher's focus on helping each individual achieve her/his potential often overlooks the significance of gender in learning and this needs to be challenged. Secondly, schools and classrooms are places where routines exist partly for convenience and partly because this is the means of managing a very complex process and thus any change is not a simple substitution of one practice for another. Thirdly, the nature of the impact of gender and the conflicting views held by those involved in schools is undoubtedly controversial. The context and the potential for conflict were evident in Rudduck's (1994: 54) study of policy development in secondary schools:

> *In none of the schools whose work is reported here were the first steps towards a whole-school gender policy taken from a position of steady confidence but rather from a spirit of commitment and determination sharpened by a sense of potential vulnerability. The involvement and support of a genuinely concerned senior management team seems, in the end, to be a determining factor in the successful development of whole-school policy and practice.*

Staff awareness of the issue of gender and achievement through staff development is a critical step, and in Rudduck's case studies staff development events were given a high profile and well resourced, with the aim of ensuring these were positive experiences for staff.

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Of importance also was the need to ensure that initiatives promoted at whole school level were taken up at department level. Thus '...an early move was the requirement that all departments produce their own equal opportunities statement, following departmental discussion, together with an action plan which indicated which priorities for development' (Rudduck: 1994: 98).

iii.   Monitoring and using data

Another critical aspect in bringing about change is the use of evidence. Davies' (1990) advice on policy making in relation to issues of equality advocates strong systems to gather and analyse data on gender performance. A similar approach is stressed in the report, *The Gender Divide* (Ofsted and EOC, 1996: 8):

> *Governors and headteachers can monitor the standards achieved in each area of the curriculum in order to identify patterns of different achievement by girls and boys. They can attempt to identify factors leading to changes from year to year, and trace trends over several years. IT-assisted analysis is a beneficial tool which secondary schools can use.*

School staff cannot graft on initiatives used elsewhere, however, without a close consideration of the situation with regard to gender equity as it exists within their school.

There is a need to analyse data so that school staff can:

- identify patterns of underachievement

- consider other areas where gender differences occur, e.g. exclusions, attendance

- target pupils at risk and

- isolate the factors which contribute to gender differences (Sukhnandan, 1999; Arnold, 1997).

Once specific strategies have been implemented, monitoring and evaluation is crucial to assess impact in schools (Education Review Office, 2000).

Some of Arnold's (1997) examples of schools that have gathered data on gender and performance indicate that this has not been limited to year-by-year assessment data. Rather, several approaches to spotting patterns of gender differentiation are in evidence, including:

- using data gathered through a longitudinal study of assessment data to look at relative performance

- using data on rate of exclusions and attendance (Sukhnandan, 1999)

- gathering examples of pupils' work and auditing teacher assessments

- examining setting arrangements and gender balance within them

- boys' and girls' participation in extra-curricular activities

- observing lessons

- recording information by gender from departments

- internal surveys and audits on gender issues within departments

- gathering information from pupils

- gathering parents' views.

It is on the basis of such data that school leaders begin to challenge established practices, both within classrooms and around the school, and initiate change.

iv.   Understandings of gender and policy making

In the discussion about teaching and learning, and also classroom organisation, one of the critical issues highlighted was the implication of specific strategies for the construction of gender in the school. We have to bear in mind that the school is a social context and it contributes to the process of socialisation, including the formation of gender identity.

There is a difficult balancing act here. On the one hand there is a need to acknowledge the multiplicity of social factors in educational achievement. At the same time there is a need to recognise the importance of the issue of gender and the task of working towards gender equity which embraces the needs of both male and female pupils in school. Although it is acknowledged that gender is one of a number of factors that need to be considered in relation to learning and achievement, it is argued that there is still a need to focus on it specifically at all levels in the educational system.

Therefore, an important aspect of initiating and sustaining change in schools is the development of a deep and more critical understanding of gender with staff and possibly pupils. Commentators offering an equitable way forward for schools (such as McNaughton, 2000; Skelton, 2001; and Frosh *et al*, 2003), point to the need for approaches which allow different forms of masculinities to be explored by boys and girls in relation to femininities. A focus on gender relations and, further, on the relationship of gender to class and ethnicity, should enable young people themselves to reflect upon the structures of power in their own classrooms. Those on the margins through, for example, sexuality or disability, may even be empowered to challenge the disparagement pervading their everyday experience of school. Renold (2004) comments:

> *…schools and school policies need to pay equal attention to the margins and to the centre. Exploring (especially with children themselves) how they are interconnected...may well go some way to disrupting the power relations that constitute the gendered hegemonic matrix that all children (boys and girls) negotiate on a daily basis within and beyond the school gates.*

(Renold, 2004: 262)

As Skelton (2001) argues, the question of the basis upon which schools should be developing policies in relation to gender equity is crucial. She puts forward four key questions which can form the basis of staff and pupil discussion about the values underpinning a policy on gender equity:

- What images of masculinity and femininity are the children bringing with them into school and what types are they acting out in the classroom and the playground?

- What are the dominant images of masculinity and femininity that the school itself reflects to the children?

- What kinds of role models does the school want and expect of its teachers?

- What kind of initiatives/strategies/projects should teachers be undertaking with children to question gender categories? (Skelton, 2001:175).

v.   Policy making

The relationship between school policy and everyday practice in the classroom is a critical one in bringing about genuine change. Rudduck (1994) identifies three levels of commitment as a framework for the development of a policy making process which brings about change in the classroom:

- heightened awareness through the production of guidelines for class teachers and promoted staff

- organisational coherence: policy development that is the basis of practice and the monitoring process

- analytical coherence: where there is a clear sense of the values basis of policy development and its link to wider purposes of education and society.

In this context, analytical coherence

> *…has something to do with defining of 'more self conscious social and political objectives'. It is about recognising something of the social and economic foundations of gender inequalities. It means looking beyond the short-term successes and understanding the tight weave of structures that hold inequality in place. Such understanding is not easy to achieve.*

(Rudduck, 1994:122)

Rudduck here highlights the importance at a policy level of examining the underpinning values. Hill and Cole (1999) make a distinction between equal opportunities policies and egalitarian policies. Whereas equal opportunities policies are based on a meritocratic idea where 'able pupils' are allowed the opportunity to achieve and gain from this in a stratified society, egalitarian policies are designed to challenge structured inequalities. This distinction is not necessarily clear in policies and there is a tension between enabling able pupils to overcome social barriers (such as gender, social class, poverty, ethnicity) in order to achieve through the school system and policies that emphasise achievement for all.

A critical step in the policy making process, then, is the discussion and debate among staff and other stakeholders of the significance of gender, equality and inclusive education.

Corson (1998: 17) argues for critical policy making. Corson proposes a process of genuine participative policy development which includes not just staff (which was the predominant model in Rudduck's case studies) but also pupils, parents and members of the wider community. The steps of the process are as follows:

- identifying the real problem(s)

- trialling policies: the views of the stakeholders: through dialogue working out trial solutions in response to the problem

- testing policies against the views of participants: using critical dialogue, they undertake small-scale research of several types to trail and gather information on the trial proposals

- policy implementation and evaluation: the conclusion to policy making is when the solution does address the concerns and issues raised by those involved, and ongoing evaluation allows for changes and modification as matters evolve. (Corson, 1998: 17)

The process of policy making can become the tool for fundamental change. However, sitting side by side with a policy has to be a range of strategies and initiatives that are undertaken in a coherent way to support the implementation of whole school policy and to bring about the anticipated change in practice as a result of agreement. In so doing, school leaders (with staff and other stakeholders such as pupils and parents) have to identify goals, co-ordinate activities and resources in a focused way and gather data to monitor and evaluate progress. The work by Traves (2000, quoted in Baxter, 2001) a primary headteacher, in tackling the issue of gender and literacy achievement, is a good illustration of this. He established a range of structures and practices as part of a co-ordinated programme on literacy through which the existing differences in gender-related performance levels were to be tackled.

This programme illustrates the need to involve a range of people, to target specific areas and to provide the necessary resources, including staff deployment. The project strategy included:

- a literacy team that met at regular intervals to discuss the needs of each class, to allocate teaching and support staff, and to monitor and evaluate initiatives in progress. This included monitoring the range and balance of reading experiences children encountered (e.g. so that boys read a broader range of genres than those they might prefer; so that both boys and girls experienced a balance of ownership of their reading and teacher guidance

- offering differentiated types of support to readers by tight target setting, monitoring and assessing of all pupils

- support and classroom assistant time allocated to those who need one-to-one help, including disaffected or disinterested boy readers

- use of Reading Recovery trained teachers

- involvement of parents and families. Certain schemes (e.g. home-school partnerships: localised initiatives such as 'Dads and Lads' reading project; Storysacks) encouraged parents, and particularly fathers, to take an active interest in their children's reading development

- training for parents: 'hands-on' workshops to infant children's parents and carers to give them strategies for supporting children's reading

- promoting reading culture around the school. Books were displayed and posters might easily display male and female authors as well as boy and girl readers. Success in reading should be celebrated as much for boys as girls in whole school contexts such as assembly

- seeing men as readers. Opportunities were created to have male role models … read aloud in front of the whole class or lead reading sessions with a class or group

- pairing readers: schemes like Buddies where older pupils read alongside younger pupils or enthusiastic readers were paired with more reluctant readers, are likely to motivate boys (p14).

The processes mapped out by Rudduck (1994) and Corson (1998) fall into one of two broad models of managing initiatives for change in relation to gender in school, i.e. the development of a whole school policy which lays out a range of strategies and initiatives.

An alternative model is to adopt an inquiry-based model of managing change. Here, data analysis and monitoring provide the evidence which becomes the starting point of an inquiry-based approach to change. The literature contains a number of such studies in relation to gender as well as others that aim to bring about change in relation to other social factors under the broad framework of inclusion. For example, Dyson *et al* (2002), in a study looking at the development of strategies for inclusion, argue that schools can and should be enabled to mark out space to be able to take forward initiatives based upon whole school inquiry methods to bring about change. The culture and processes for change within the school were crucial.

A small scale study by Wikely and Jamieson (1996) is a good illustration of school-based action using investigative techniques to indicate that gender difference in performance is an issue that can be affected by internal school policy and practice. This approach also helps to acknowledge that there is a complex range of environmental and other factors that also come into play. Here the approach adopted inquiry-based methods underpinning change projects similar to those advocated by Corson (1998), that is gathering views from both pupils and staff and using these to develop strategies to tackle issues.

vi.   Role models

One of the areas of gender imbalance within schools relates to teaching staff, or to be more precise, to the increasing female domination of the profession. The issue of lack of role models in management and in traditional male areas such as science was used as the basic argument for initiatives such as Women into Management and Girls into Science and Technology (GIST). Is there now a case for the recruitment of more men into schools?

Recent efforts though by the TTA have focused on the recruitment of men into teaching, especially into primary schools, and these have been criticised for reinforcing gender stereotypes (Burn, 2001, Pepperell and Smedley 1998). The desirability of increasing male recruitment into primary teaching on the grounds of wider societal equality is recognised – but claims that the recruitment of men or people from ethnic minority groups will improve performance are challenged. We should be wary of adopting crude ideas of 'boy friendly' schooling such as the numerical presence of male teachers and the use of boys' culture (Carrington and Skelton, 2003; Ashley, 2002). Ashley's study demonstrated that boys lay greater emphasis on the qualities, rather than the gender, of the teacher.

Notwithstanding concerns over the simplistic claims that there is a need to recruit more men into the teaching profession, the role of male teachers working with boys on gender issues is discussed. There is a need to involve boys in discussions about gender and about masculinity. Mills (2000) argues that the approach where male teachers work with boys constitutes part of the process of men addressing 'the privileged position in which they are situated in gendered relations of power'. Mills (2000: 222) argues that it is not about empowerment of 'boys as *boys*' (italics in original), but about a consideration of power dynamics. Drawing from Denborough (1995 and 1996), Mills argues that for this to work a more desirable, respectful approach is necessary:

> *A respectful pedagogical approach to these issues does not mean that teachers should not try to provide alternative ways of reading existing relations of power. A socially just approach to the education of boys cannot ignore the privileges which boys accrue as a result of being male, and the behaviours which are implemented in order to shore resistance to any challenges to those privileges. However, it must also recognise that the problem of gender and violence is not a pathological one but a systemic-structural problem.*   (Mills, 200: 235)

vii.   Mentoring

At school level, mentoring is an initiative suggested as the means to deal particularly with boys' underachievement. Different patterns can be found: the use of peer counselling (Ryder, 1998), reading buddies (Noble, 1998) subject specific support (Penny, 1998). Different strategies were also found by Sukhnandan *et al* (2000) in their survey. A number of reasons were found for schools adopting mentoring. These included the targeting of specific pupils, usually underachieving boys, with a focus on increasing motivation and confidence, and to support pupils on the borderline in terms of predicted examination results. A number of positive outcomes from mentoring schemes were found by Sukhanandan *et al* (2000);

- for boys there were benefits in having help in organising their learning and dealing with issues such as study habits, timetables

- for girls it was a source of support in developing strategies to deal with pressure

- the one-to-one attention provided support in relation to self-esteem and motivation and challenged anti-learning subcultures which some teachers felt were prevalent among boys

- for both boys and girls, mentoring could be linked to target setting and a range of targets could be covered, including study skills, academic guidance, attendance and punctuality.

Sukhnandan *et al* found there were limitations, particularly time and the availability of enough trained mentors. In some schools this meant there was only a limited participation by some pupils, largely boys, thus excluding girls from what could be a valuable source of support. Further, Younger, Warrington *et al* (2005) found that

> *'individual approaches, based on a coherent and integrated approach to target setting and mentoring, were very important in some schools in transforming and sustaining improvements in achievement'.*

viii.   School ethos and participation in development

Another issue relating to the whole school context is that of school culture and ethos. In Scotland, the School Ethos Network has been active in promoting the development of whole school strategies to establish and enhance a positive ethos, strategies to promote positive behaviour and to create greater pupil participation in the community life and decision making processes of school. Perhaps the most remarkable aspect of the significant range of case studies (Munn, 1999; Murray and Closs, 2000; Murray, 2002) is the limited focus on gender in the accounts.

Arnold's (1997) survey of English initiatives points to a different aspect of school ethos and gender. A consistent theme in many of the examples provided is the involvement of pupils and parents, both in gathering evidence and in discussing policy development around the issue of gender. Among the strategies highlighted are the use of:

- questionnaires at the outset to gather pupil views to identify the issues and help shape initiatives

- pupil questionnaires to monitor the progress and impact of initiatives

- individual and group interviews to raise the profile of gender issues and again to help shape initiatives.

Parents, too, were seen as having an important role to play, both in supporting boys' learning and in contributing to public activities to raise the profile of gender. Strategies adopted by schools included:

- overtly raising the issue of boys' underachievement with parents

- holding a parents' evenings seminar on the issue of gender

- encouraging parents' involvement in school activities

- gathering views and suggestions from parents

- providing suggestions to parents, particularly in relation to boys' work habits.

To summarise:

A way forward may be provided by change management processes involving a complex range of strategies including:

  i.   the identification of issues and problems specific to the school by gathering a variety of data, including the views of stakeholders

  ii.   the use of strategies to raise staff awareness

iii. **the development of specific teaching skills to address issues of gender inequality in the classroom**

iv. **the use of public events to raise interest**

v. **the involvement of all stakeholders in discussion**

vi. **the use of monitoring to sustain and enhance progress.**

9.   Vocational education

There is a very limited literature on gender and vocational education within school education. There were some early initiatives in relation to girls' entry into traditional male areas, such as GIST (Girls into Science and Technology), and equal opportunities were a key aspect of TVEI (Howieson, 1990). Discussions in the early literature focused on children's perceptions of occupational role and gender with the intention of widening children's aspirations, particularly those of girls into traditional male areas, but also to a lesser degree opening the possibilities for boys for entry into caring occupations.

One of the trends noted earlier was the differential gender pattern in terms of post-school careers. Studies in the Australian and American systems replicate these gender differentiated patterns. The limited nature of girls' aspirations was problematised in the early literature. Lower occupational aspirations had impacted on lower educational attainment for girls. Powers and Wojtkiewicz (2004), using data from the National Longitudinal Survey of Youth in the USA, found that occupational aspiration will impact positively on girls' successful completion of high school, but the effect diminishes in relation to college completion.

A pattern of gender division in the uptake of occupations is evident in Scotland. As the EOC (1998: 6) notes:

> ...the Scottish School Leavers Survey (SSLS) illustrates interesting differences between young women and men and the type of training scheme or job which they enter. Gender stereotyping is clearly apparent. At the time of the last SSLS for which data is currently available (1995), one in three women were in clerical and secretarial jobs/training schemes whereas more than two out of five men were in craft and related jobs/training schemes.

A more recent Scottish study, by Howieson (2003: 10), revealed similar findings. Gender differences were evident in the post school experiences of early leavers:

> Female leavers had poorer outcomes than young men despite having higher average attainment. Official concern and policies have focused on the perceived underachievement of young men and, as a consequence, young women are in danger of being overlooked. Policies for early leavers need to take account of the different circumstances and challenges faced by young men and women who leave school early.

The most comprehensive discussion of vocational education is a paper from the Equal Opportunities Commission (1999) 'Gender issues in vocational education and training and workplace achievement of 14-18 year olds: an EOC perspective'. Though girls' attainment has risen, there still seems to be a gender pattern in relation to the choice of options, entry into training and employment. Thus '...while progress has been made on improving girls' access and achievements within compulsory schooling and training, this has had little impact on post-school destinations and occupational choices' (EOC 1999: 211). A number of areas under the broad heading of vocational education are considered: Part 1 GNVQs, FE, Modern Apprenticeships and National Traineeships. In relation to school-based vocational education, there is a continued pattern of gender-segregated choices and pathways which is working to the disadvantage of women and girls. The EOC notes that changes to the curriculum in England in which greater choice has been introduced have led to greater differentiation in terms of gender:

> The trend towards increased choice at Key Stage 4 (age 14-16 years) has marked an unwelcome return to stereotyping of girls and boys into traditional subjects and work-related areas of learning. This is also evident in choice post-16 at GCE A level, further education (FE) and higher education (HE).

> (EOC, 1999: 211)

Further, the EOC (1999: 214) argues that mainstream systems reinforce rather than challenge traditional patterns of gender stereotyping and segregation:

> *Available data show that gender segregation in vocational education and training is clearly visible on all courses, at all levels, with women and men enrolling and gaining different types of qualifications in different subjects.*

Echoing this, Croxford *et al* (2003) found gender-differentiated patterns in science and technology from S3 in secondary education in Scotland.

The EOC highlights a range of factors for continued gender differentiated patterns:

- careers guidance
- school options guidance
- peer pressure
- societal stereotyping
- 'washback' into schools and colleges of employment patterns
- parent views
- students' own predilections

and advocates that a focus on gender equality has to accompany the opening of option choices in schools.

Drawing from the lessons of TVEI, the EOC puts forward some proposals for school-based vocational education and training:

- gender stereotyping has to be recognised and identified by governments as an ongoing issue to be addressed in schools

- policy developments, such as the review of the National Curriculum, must mainstream gender equality and ensure that any changes, particularly to the KS4 curriculum, do not further promote stereotyped vocational education for girls and boys.

- resourcing linked to targets and outcomes should be made available to schools for curriculum development work to challenge gender stereotyping

- training and guidance should be provided for schools to deliver on this vocational education and training equality objective.

One related area in school-based vocational education is that of work experience. Mackenzie (1997) noted the impact of gender on work placements, with boys more likely to have placements in engineering, mechanics and construction and girls in clerical and caring occupations. Some girls seeking non-traditional placements in mechanics, etc. were not taken seriously. Differences in the source of influence were found, with girls more influenced by parents and boys by their peers, particularly in circumstances where caring placements were regarded as 'woman's work'. A more recent study (Hamilton, 2003) found that parental influence in choice of work placements often reinforced traditional choice, though more boys were now involved in placements in primary and pre-five establishments. Though Hamilton (2003: 3) cautions that work placement is not an indicator of future choice of career, data from Careers Scotland reveal that the gender pattern overall has altered little:

> *Although girls predominate in 'community and health' there has been a slight increase in the proportion of boys in the sector. Notable also is the continued absence of girls in 'building crafts', and 'engineering' and their low representation in the 'technical and scientific' and 'transport' sectors. Over time, some slight adjustments in the gender balance in each sector may be observed: for example in administration, clerical and other services, there has*

been a decline in the proportion of girls in the sector, although an overall increase of the number of both sexes.

To summarise:

- **Patterns of gender stereotyped post-school destinations are still apparent for school leavers and these patterns disadvantage girls in particular.**

- **Early leavers have particular needs in terms of advice and support, with girls experiencing poorer outcomes in spite of higher attainment.**

- **A specific focus on gender-related issues is needed at option-choice times in schools.**

The final section concludes the review and maps out the implications for subsequent stages of the research.

10.   Conclusion and implications for the rest of the study

This review has traced interest in gender issues in education since the 1970s, from early concerns with girls' disadvantage to a more recent focus on boys' lower attainment relative to girls. The literature over this period has moved from straightforward prescriptions for change in the organisation and presentation of the curriculum through theories about the nature of masculinities, in particular, and their relationship to other forms of social identity. From this work have emerged more complex understandings of how boys interact with schooling, enabling a critique of many school strategies as inadequate and inequitable but, until recently, offering little by way of advice about alternative approaches. That advice is now becoming available, however. Schools – pupils, parents and staff – need to be able to look critically at the differing identities which boys and girls inhabit. Their consciousness of the processes through which boys learn to be boys and girls to be girls is noted as critical in allowing young people scope to grow and change. The review of gender strategies in schools will therefore consider the breadth and depth of approaches used, that is, the extent to which gender strategies are the product of analysis and discussion amongst the school community as a whole.

Developing gender policies and practice requires that gender issues are considered in all aspects of school development, as well as being a specific focus pursued through discrete strategies. Such permeating approaches might be mirrored in local authority and in national education initiatives. The invisibility of gender in many policy documents has been surprising, given highly gendered patterns of pupil experience. The trawl of LA policy will address the ways in which gender issues are championed in policy development processes.

Also noted here has been the influence of the broader social and economic context of schooling. Schools are sites where gender identities and relationships are formed, but these are also shaped by other factors such as social class, 'race' and ethnicity. Young people will have a sense of their futures and a view of the kind of men and women they will become, related to their wider experience in the family and in the community. The case study phase of the research will be alert to the influences of out-of school factors and will construct a sample of schools to reflect not just a range of approaches to boys' attainment but also a range of communities offering different kinds of prospects to young people. The aim here will be to consider the ways in which gender factors are mediated by other forms of identity.

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